

REMARKS

Upon entry of this amendment, claims 1-10 and 12-20 are all the claims pending in the application. Claims 19 and 20 have been added as new claims. No new matter has been added.

I. Claim Rejections under 35 U.S.C. § 103(a)

A. Claims 1 and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujinami et al. (U.S. 5,568,274) in view of Daum (U.S. 5,596,420).

Claim 1 recites the feature of a data formatter operable to output predetermined data in accordance with matching status information when a sequence of input code is judged not to be a part of a packet start code, and not to output when the sequence of input code is judged to be a part of the packet start code.

Regarding such a feature, Applicants note that in the Office Action, the Examiner has not addressed the above-noted feature drawn to a data formatter operable not to output when the sequence of input code is judged to be a part of the packet start code.

In particular, Applicants note that while the Examiner has taken the position that Fujinami discloses a data formatter operable to output predetermined data in accordance with matching status information when a sequence of input code is judged not to be part of a packet start code (see Office Action at page 3), that the Examiner has not taken the position that either Fujinami or Daum discloses or suggests a data formatter that is operable not to output when the sequence of input code is judged to be a part of the packet stat code.

Thus, as the Examiner has not taken the position that either Fujinami or Daum discloses the above-noted feature, Applicants submit that claim 1 is patentable over the cited prior art.

Moreover, with respect to Fujinami and Daum, Applicants submit the following discussion explaining why these references do not disclose or suggest the above-noted feature.

In particular, regarding Fujinami, Applicants note that this reference discloses a control circuit 24 that causes a switching circuit 23 to connect an input terminal G successively to output terminals H1 and H2 in accordance with a stream ID of the packet header received from a header separation circuit 22 (see col. 3, lines 17-22 and col. 15, lines 29-33). By operating the switching circuit 23 of Fujinami in this manner, video data and audio data can be separated from one another, wherein the video data is supplied to a video decoder 25 and the audio data is supplied to an audio decoder 26 (see Figs. 2 and 12; and col. 3, lines 22-25).

Therefore, as is evident from the above-noted description, in Fujinami, packet headers are separated from a multiplexed signal and provided to a control circuit, wherein the control circuit controls the switching circuit to connect to either output terminal H1 or output terminal H2 based on whether the data is audio data or video data.

Thus, while Fujinami disclose the ability to separate a packet header and control switching based on the analysis of the header, Applicants respectfully submit that Fujinami does not disclose or in any way suggest the feature of a data formatter operable to output predetermined data in accordance with matching status information when a sequence of input code is judged not to be a part of a packet start code, and not to output when the sequence of input code is judged to be a part of the packet start code, as recited in claim 1.

Further, regarding the Daum reference, Applicants note that this reference is drawn to an apparatus for controlling playback of audio and video signals from an encoded data stream,

wherein latency between audio and video decompression/decoding can be adjusted for dynamically by internal hardware (see Abstract, col. 3, lines 53-56 and col. 4, lines 32-39).

Thus, while Daum may disclose the ability to adjust for latency between audio and video, Applicants respectfully submit that Daum also does not disclose or suggest the above-noted feature of a data formatter operable to output predetermined data in accordance with matching status information when a sequence of input code is judged not to be a part of a packet start code, and not to output when the sequence of input code is judged to be a part of the packet start code, as recited in claim 1.

In view of the foregoing, Applicants respectfully submit that that the combination of Fujinami and Daum does not disclose, suggest or otherwise render obvious at least the above-noted feature recited in claim 1. Accordingly, Applicants submit that claim 1 is patentable over the cited prior art, an indication of which is kindly requested.

Further, Applicants note that claim 1 also recites the features of a head code detection unit operable to determine whether a current input code of the sequence of input code matches a current code of the packet start code, wherein the data formatter is operable to output the predetermined data at a timing when the head code detection unit determines that the current input code of the sequence of input code does not match the current code of the packet start code.

Applicants respectfully submit that Fujinami and Daum also do not teach or suggest these features of claim 1. In this regard, Applicants note that in the Office Action, the Examiner has recognized that Fujinami does not disclose or suggest such features, but has taken the position that Daum cures this deficiency of Fujinami, and has pointed to the disclosure in Daum at col. 4, lines 10-16 in support thereof (see Office Action at pages 4-5). Applicants respectfully disagree.

In particular, Applicants note that col. 4, lines 10-16 of Daum is directed to a comparator 414 that is coupled to a subtractor 413, with the comparator 414 being responsible for comparing a difference between the output of the subtractor 413 and a time drift threshold (see Fig. 4A, col. 4, lines 10-16 and col. 10, line 63 through col. 11, line 2). With respect to the output of the subtractor 413, as shown in Fig. 4A of Daum, Applicants note that the value output by the subtractor 413 (i.e., $(\text{APTS} + \text{M}) - \text{VPTS}$) represents the difference between an audio presentation time stamp (APTS) plus a latency value M (i.e., $\text{APTS} + \text{M}$) and a video presentation time stamp (VPTS) (see Fig. 4A, col. 4, lines 10-16 and col. 10, line 63 through col. 11, line 2).

Based on the foregoing description of Daum, Applicants note that while Daum discloses a subtractor 413 which calculates a result of the formula $(\text{APTS} + \text{M}) - \text{VPTS}$, as well as a comparator 414 which compares the result of the above-noted formula with a time drift threshold (see Fig. 4A), that such elements do not in any way whatsoever correspond to a head code detection unit operable to determine whether a current input code of the sequence of input code matches a current code of the packet start code, and a data formatter that is operable to output the predetermined data at a timing when the head code detection unit determines that the current input code of the sequence of input code does not match the current code of the packet start code, as recited in claim 1.

In view of the foregoing, Applicants respectfully that claim 1 is patentable over the combination of Fujinami and Daum, an indication of which is kindly requested. Claim 10 depends from claim 1 and is therefore considered patentable at least by virtue of its dependency.

B. Claims 5 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujinami et al. in view of Daum, and further in view of Toyohara (U.S. 5,768,265).

Claims 5 and 15 depend from claim 1. Applicants submit that Toyohara fails to cure the deficiencies of Fujinami et al. and Daum, as discussed above, with respect to claim 1.

Accordingly, Applicants submit that claims 5 and 15 are patentable at least by virtue of their dependency.

C. Claims 6, 7, 16 and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujinami et al. in view of Daum and Toyohara, and further in view of Boden (U.S. 5,633,686).

Claims 6, 7, 16 and 17 ultimately depend from claim 1. Applicants submit that Boden fails to cure the deficiencies of Fujinami et al., Daum, and Toyohara, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claims 6, 7, 16 and 17 are patentable at least by virtue of their dependency.

D. Claims 8, 9 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yanagihara et al. (U.S. 6,172,989) in view of Movshovich et al. (U.S. 6,359,911).

Claim 8, as amended, recites the feature an end code sequence detector operable to detect, from code sequences of coded data, a code sequence indicating the end of the coded data, the code sequence indicating the end of the coded data being located at the end of the coded data. Applicants submit that the combination of Yanagihara and Movshovich does not teach or suggest at least this feature of claim 8.

In particular, with respect to the above-noted feature, Applicants note that the Examiner has indicated in the Office Action that the “data length” description in the header of Yanagihara corresponds to the “code sequence indicating the end of the coded data” as recited in claim 8 (see Office Action at page 8 and col. 1, lines 66-67 of Yanagihara).

As noted above, however, claim 8 has now been amended to recite that the code sequence indicating the end of the coded data is located at the end of the coded data.

Thus, as the “data length” description of Yanagihara is clearly described as being located in the header of Yanagihara, which is at the beginning of coded data, Applicants respectfully submit that Yanagihara clearly does not disclose or suggest the above-noted feature recited in amended claim 8 of an end code sequence detector operable to detect, from code sequences of coded data, a code sequence indicating the end of the coded data, the code sequence indicating the end of the coded data being located at the end of the coded data. Moreover, Applicants respectfully submit that Movshovich fails to cure this deficiency of Yanagihara.

In view of the foregoing, Applicants respectfully submit that the cited prior art does not teach, suggest or otherwise render obvious all of the features recited in claim 8. Accordingly, Applicants submit that claim 8 is patentable over the cited prior art, an indication of which is kindly requested.

In addition, Applicants note that claim 8 also recites that among the predetermined number of the pseudo data, a portion of the pseudo data that is always less than the data bus width of pipeline transfer is combined with the code sequence indicating the end of coded data and transferred in a pipeline manner. Applicants submit that the combination of Yanagihara and Movshovich does not teach or suggest such a feature.

Regarding Yanagihara, Applicants note that this reference discloses the ability to add padding data so that data packets can be divided into data blocks having a size (e.g., 36 byte data blocks as shown in Fig. 16(E)) that is necessary to convert the MPEG-PS data pack into packets that conform with IEEE 1394. In addition, as discussed above, the “data length” description of Yanagihara is located in the packet header (see col. 1, lines 66-67).

Thus, while Yanagihara may disclose the ability to add padding data so that data packets can be divided into data blocks of a certain size, as well as a “data length” description in the packet header, that Yanagihara does not disclose or in any way suggest the above-noted feature of claim 8 which recites that among the predetermined number of the pseudo data, a portion of the pseudo data that is always less than the data bus width of pipeline transfer is combined with the code sequence indicating the end of coded data and transferred in a pipeline manner.

Further, regarding Movshovich, Applicants note that this reference merely describes the use of a transport stream pipeline 354 (see col. 9, lines 22-30). As such, Applicants respectfully submit that Movshovich does not cure the above-noted deficiency of Yanagihara.

In view of the foregoing, Applicants respectfully submit that the combination of Yanagihara and Movshovich does not disclose, suggest or otherwise render obvious the above-noted feature of claim 8 which recites that among the predetermined number of the pseudo data, a portion of the pseudo data that is always less than the data bus width of pipeline transfer is combined with the code sequence indicating the end of coded data and transferred in a pipeline manner.

Accordingly, Applicants submit that claim 8 is patentable over the cited prior art, an indication of which is kindly requested.

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Claims 9 and 18 depend from claim 8 and are therefore considered patentable at least by virtue of their dependency.

II. Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 2-4 and 12-14 contain allowable subject matter and would be allowable if rewritten in independent form.

III. New Claims

Claims 19 and 20 have been added as new claims. Claims 19 and 20 depend from claim 8 and are therefore considered patentable at least by virtue of their dependency.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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